

TITLE OF THE INVENTION

Package For Flexible Tubing

FIELD OF THE INVENTION

5           The present invention relates to packages or boxes for storage and dispensing of flexible tubing.

BACKGROUND OF THE INVENTION

10           Boxes are widely used to store and dispense flexible tubing. One example of a conventional box is U.S. Patent No. 5,826,817. Such conventional boxes are not designed for storing and dispensing rolls of small diameter flexible tubing. Small diameter flexible tubing is defined as any flexible tubing having an outside diameter in the range of about 0.25 inches to 1.50 inches. There is a need to develop a box that can store and dispense a roll of small diameter flexible tubing in an easy-to-use manner by the consumer and  
15           which can be cost effectively manufactured, stored, and distributed by the manufacturer.

SUMMARY OF THE INVENTION

20           The present invention is a box for use by a person to store and dispense a roll of small diameter flexible tubing. The box comprises a front wall, a rear wall, first and second substantially open side walls, and an inside portion. The box further comprises a first flap extending from the rear wall to the front wall and substantially centered between the first and second side walls. The first flap is removably engageable with the front wall between an open position where the person may remove the first flap and insert the roll of flexible tubing into the inside portion and a closed position where the person may

engage the flap to retain the roll of small diameter flexible tubing and then dispense as needed. The first and second substantially open sidewalls each comprise an elongated strip extending from said front wall to said rear wall to retain the roll of small diameter flexible tubing. The box is made from a single piece of corrugated cardboard having a plurality of fold lines.

### BRIEF DESCRIPTION OF THE DRAWINGS

The following detailed description of the invention will be more fully understood with reference to the accompanying drawings in which:

- FIG. 1 is a perspective view of the box of the present invention;
- FIG. 2 is a front elevation view of the present invention;
- FIGS. 3 and 4 are side elevation views of the present invention;
- FIG. 5 is a rear elevation view of the present invention;
- FIG. 6 is top plan view of the present invention;
- FIG. 7 is a bottom plan view of the present invention;
- FIG. 8 is a perspective view of the present invention in an unfolded state; and
- FIG. 9 is perspective view of the present invention in a substantially folded state.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIGS. 1-9, the present invention is a box 10 for use by a person (not shown) to store and dispense a roll of flexible tubing 12 for flexible tubing having an outside diameter in the range of about 0.25 inches to 1.50 inches.

The box 10 comprises a front wall 14, a rear wall 16, first and second side walls 18 and 20, a bottom wall 21, and an inside portion 22 formed thereby. The first and second substantially open sidewalls 18 and 20 comprise elongated strips 17 and 19, respectively, extending from the front wall 14 to the rear wall 16. The front and rear walls

14 and 16 extend substantially above the elongated strips 17 and 19. The elongated strips 17 and 19 each comprise first and second portions 40 and 42 having an inner edge bearing surface 33 and a planar bearing surface 44, respectively. The inner edges 33 of elongated strips 17 and 19 are disposed inward of the outermost ends of the front and rear walls 14 and 16. The relative position of the inner edges 33 allows proper width retention and dispensing of small diameter flexible tubing 12 within the inside portion 22. When folded, the first portions 40 and inner edges 33 act as bearing surfaces to retain the roll of small diameter flexible tubing 12 during storage and dispensing, and the second portions 42 provide engagement support with the rear wall 16. The use of elongated strips 17 and 19 provide a substantially opened sidewall support system for small diameter flexible tubing and a significant reduction in material waste.

The box 10 further comprises a first flap 24 extending from the rear wall 16 to the front wall 14 and substantially centered between the first and second side walls 18 and 20. The first flap 24 has a tab 25 removably engageable with the front wall 14 between an open position where the person may disengage and the first flap 24 and insert the roll of flexible tubing 12 into the inside portion 22 and a closed position where the person may engage the first flap 24 with the front wall 14 to retain the roll of flexible tubing 12 and dispense the flexible tubing as needed. The box 10 may further comprise a second flap 26 extending from the front wall 14 and having a female fastener 28 in the form of an elongated slot adapted to removably engage with the tab 25 of the first flap 24. The second flap 26 is substantially centered between the first and second side walls 18 and 20.

As best shown by FIGS. 8 and 9, the box 10 is made from a single piece of corrugated cardboard having a plurality of fold lines 30 to form the front wall 14, rear wall 16, first and second side walls 18 and 20, bottom wall 21, inside portion 22, and first and second flap 24 and 26. The box 10 can be manufactured by conventional die-cutting processes. The corrugated cardboard and flexible tubing are widely available in varying

materials and sizes from a variety of sources.

The foregoing description is intended primarily for purposes of illustration. This invention may be embodied in other forms or carried out in other ways without departing from the spirit or scope of the invention. Modifications and variations still falling within  
5 the spirit or the scope of the invention will be readily apparent to those of skill in the art.